

CHARGE NUMBER: Project 1730  
PROJECT TITLE: Plant Tissue Research  
PERIOD COVERED: August 1-31, 1984  
PROJECT LEADER: L. Weissbecker  
DATE OF REPORT: August 29, 1984

I. TOBACCO CELLS:

Cells generated from callus tissue obtained from leaf discs have been grown in suspension culture. The callus tissue from leaves produced alkaloids when subjected to certain growth regulators. Alkaloid production was monitored with Dragendorff reagent.

II. PLANT PROTOPLASTS:

Some plant protoplasts, obtained from tissue culture grown plantlets, have undergone a few cell divisions and are being cultured for callus formation. No viable protoplasts have yet been obtained from greenhouse grown plants.

III. GRAFTED TOBACCO PLANTS:

The first primings have been obtained of Coker 319 tobacco plants grafted onto Coker 319 roots and onto TI516 roots (a low alkaloid producer). Preliminary results from General Analytical indicate a significant reduction in the alkaloid content in flue-cured leaves from Coker 319 grafted onto TI516 roots compared to leaves from Coker 319 grafted onto Coker 319 roots. The second primings have just been received.

IV. MISCELLANEOUS:

Tobacco tissue culture samples were sent to Dr. Ed Kot of Miller Brewing to enable them to restart their tissue culture experimentation.

V. REFERENCES:

Karen Barlow - notebook 8061.  
Maria Shulleeta - notebook 8099.  
Lou Weissbecker - notebook 7925.

*L. Weissbecker*

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